

Title (en)

ANTENNA WITH INCREASED ELECTRICAL LENGTH AND WIRELESS COMMUNICATION DEVICE INCLUDING THE SAME

Title (de)

ANTENNE MIT VERGRÖßERTER ELEKTRISCHER LÄNGE UND DRAHTLOSE KOMMUNIKATIONSEINRICHTUNG DAMIT

Title (fr)

ANTENNE A LONGUEUR ELECTRIQUE ACCRUE ET DISPOSITIF DE COMMUNICATION LA COMPRENANT

Publication

EP 2008340 A4 20090527 (EN)

Application

EP 07745738 A 20070330

Priority

- KR 2007001575 W 20070330
- KR 20060029327 A 20060331
- KR 20060033029 A 20060412

Abstract (en)

[origin: WO2007114607A1] Disclosed is an antenna with an extended electrical length, including radiators (110, 210, 310), (410 and 510) having S-shaped or spiral-shaped cells (112, 212, 312 and 512). The cells (112, 212, 312 and 512) are formed on the front surface of the boards (120, 220, 320, 420 and 520), and two or more of the cells are connected in series by connectors (114, 214 and 314) formed on the rear surface of the board. Furthermore, the antenna includes a ground stub (150) and a parasitic element (160) electromagnetically coupled to the radiators (110, 210, 310, 410 and 510), and has a good radiation characteristic. Furthermore, the antenna can include the cells (112, 212, 312 and 512) of different sizes and can thus have a multi-band characteristic.

IPC 8 full level

H01Q 1/38 (2006.01); **H01Q 1/24** (2006.01); **H01Q 9/40** (2006.01); **H01Q 9/42** (2006.01)

CPC (source: EP KR US)

H01Q 1/242 (2013.01 - EP KR US); **H01Q 1/244** (2013.01 - EP KR US); **H01Q 1/36** (2013.01 - EP KR US); **H01Q 9/40** (2013.01 - EP KR US); **H01Q 9/42** (2013.01 - EP KR US)

Citation (search report)

- [XY] WO 9940647 A1 19990812 - ERICSSON GE MOBILE INC [US]
- [X] WO 0079644 A1 20001228 - MOTECO AB [SE], et al
- [Y] US 2005030232 A1 20050210 - MONEBHURRUN VIKASS [FR], et al
- [X] EP 0986130 A2 20000315 - SIEMENS AG [DE]
- [X] WO 2005076407 A2 20050818 - FRACTUS SA [ES], et al
- See references of WO 2007114607A1

Citation (examination)

- WO 9749141 A1 19971224 - ALLGON AB [SE], et al
- US 2894260 A 19590707 - ELLIS GLENN R

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2007114607 A1 20071011; CN 101416348 A 20090422; CN 101416348 B 20120808; EP 2008340 A1 20081231; EP 2008340 A4 20090527; EP 2242143 A1 20101020; KR 100766784 B1 20071012; KR 20070098098 A 20071005; US 2009315786 A1 20091224

DOCDB simple family (application)

KR 2007001575 W 20070330; CN 200780012028 A 20070330; EP 07745738 A 20070330; EP 10168584 A 20070330; KR 20060029327 A 20060331; US 28162107 A 20070330